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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,099	07/26/2001	Norio Oku		9770

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HOGAN & HARTSON L.L.P.  
500 S. GRAND AVENUE  
SUITE 1900  
LOS ANGELES, CA 90071-2611

EXAMINER
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DI GRAZIO, JEANNE A

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/917,099

Applicant(s)

OKU ET AL.

Examiner

Jeanne A. Di Grazio

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Election 12 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 16-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/04 and 3/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

Priority to Japanese Patent Application No. 2000-229575 (July 28, 2000) is claimed.

### *Election/Restrictions*

Applicant's election without traverse of Invention I, Species B claims 16-23 readable thereon in Paper of April 12, 2004 is acknowledged.

### *Claim Objections*

Claim 16 is objected to because of the following informalities. As to claim 16, the recitation "disposing a thermosetting seal material in the outer peripheral region of the display area between said pair of substrates to form a display panel body" is misleading. The step of disposing a thermosetting seal material in an outer peripheral region of a display area between a pair of substrates does not result in the formation of a display panel body. The step of disposing a thermosetting seal material in an outer peripheral region of a display area between a pair of substrates delineates display and non-display regions but does not delineate a display panel body.

Appropriate correction is **required**.

Claim 16 is objected to because of the following informalities. As to claim 16, the recitation "disposing a thermosetting seal material in the outer peripheral region of the display area between said pair of substrates to form a display panel body" is misleading. If the

thermosetting seal material is disposed in an outer peripheral region then it cannot be disposed between substrates as the recitation may be read to imply.

Appropriate correction is **required**.

Claim 16 is objected to because of the following informalities. As to claim 16, the recitation "said buffer plate comprising a rigid film having a high rigidity and buffer films provided to sandwich said rigid film" is misleading. The recitation may be interpreted in different ways depending upon how one reads the modifier "comprising" and how one interprets the definition of "plate." One might interpret the recitation to mean that the buffer plate is actually a series of layers of films (rigid film and buffer films) or one might interpret the recitation to mean that the buffer plate merely comprises a rigid film and then subsequent to the rigid film, buffer films are included. If the buffer plate is read as a series of layers of films, then selection of the word "plate" is incorrect because "plate" means "a smooth flat thin piece of material" and not a series of layers. For examination purposes, the recitation "said buffer plate comprising a rigid film having a high rigidity and buffer films provided to sandwich said rigid film" is interpreted as consistent with the noted prior art.

Appropriate correction is **required**.

Claims 18 and 19 are objected to because of the following informalities. As to claims 18 and 19, the limitation "**said** buffer **film**" contradicts base claim 16 which requires "buffer **films**."

Appropriate correction is **required**.

Claim 21 is objected to because of the following informalities. As to claim 21, the limitation, "heating plates" lacks antecedent basis as not having been properly introduced into the independent claim from which it depends.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

Claims 17-19 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 17, Applicant recites a "said rigid film is formed of a metal."

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. That the rigid film is formed of a metal does not affect the method in a manipulative sense and amounts to the mere claiming of use of a particular structure.

As to claim 18, Applicant recites "said rigid film is formed of a metal and said buffer film is formed of polytetrafluoroethylene."

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. That the rigid film is formed of a metal and said buffer film is formed of polytetrafluoroethylene does not affect the method in a manipulative sense and amounts to the mere claiming of use of a particular structure.

As to claim 19, Applicant recites, "wherein said buffer film is formed of polytetrafluoroethylene."

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. That said buffer film is formed of polytetrafluoroethylene does not affect the method in a manipulative sense and amounts to the mere claiming of use of a particular structure.

As to claim 21, Applicant recites "a dummy substrate is disposed between at least a lower plate of said pair of heating plates and said buffer plate disposed under said display panel body, and at least a lower buffer plate, said display panel body, and an upper buffer plate are stacked on said dummy substrate in this order from the bottom in an aligned manner, and are introduced together with said dummy substrate to a space between said pair of heating plates."

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. The use of a dummy substrate, lower buffer plate, and upper buffer plate stacked relative to each other does not affect the method in a manipulative sense and amounts to the mere claiming of a stacking relationship of dummy substrate and lower and upper buffer plates.

As to claim 22, Applicant recites "said display panel body includes a plurality of panel regions to be formed into liquid crystal display panels, and said thermosetting seal material is disposed in each of the panel regions in an outer peripheral region of an area to be formed into a display area, and said buffer plate includes an opening formed at a position corresponding to said area of each of said panel regions."

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. That the display panel body includes a plurality of panel regions, the thermosetting seal material disposed in each of the panel regions, and the buffer plate having an opening does not affect the method in a manipulative sense and amounts to the mere claiming of the noted structure.

As to claim 23, Applicant recites no spacers for defining the gap between the substrates in said display area are provided in said display panel body.”

It has been held that to be entitled to weight in method claims, the recited structure limitations must therein affect the method in a manipulative sense, and not to amount to the mere claiming of use of a particular structure. A limitation that claims a lack of spacers does not affect the method in a manipulative sense and amounts to the mere claiming of a lack of spacers.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,677,749 (to Tsubota et al.) in view of United States Patent 6,222,603 B1 (to Sakai et al.).

As to claims 16 and 20, Tsubota teaches and discloses a step of disposing a thermosetting sealing member around an outer peripheral region of a display area substrate (Figure 1, sealing member #64, substrate #63 ; see also Column 3, Line 4), heating and curing the thermosetting seal material while applying a load to an upper surface plate of a display panel body through upper and lower surface plates (Figure 3, display panel body = 204-206 ; upper surface plate 201 ; lower surface plate 206)(Applicant's "heating and curing said thermosetting seal material while applying a pressure from said outer surface of said display panel body to between said substrates through said buffer plates"). Tsubota also teaches and discloses an elastic sheet having a profile corresponding to panel display areas (Figure 10, elastic sheet 33).

Tsubota does not appear to explicitly specify a thermally conductive buffer plate of a rigid film having a high rigidity and buffer films of a lower rigidity that the rigidity of the rigid film.

Sakai teaches and discloses a method of manufacturing a liquid crystal display device with a double seal (Title, entire patent). With reference to Sakai's third embodiment / Figure 7 (by way of non-limiting example), Sakai teaches and discloses a buffer plate (12) having a hard layer (200) covered by an elastic layer (100). Sakai explicitly teaches and suggests that the



elastic layer (100) absorbs dispersion of thickness and bending of two substrates while the hard layer (200) vertically repulses pressure to any point of the substrates (Column 6, Lines 54-67).

That is, Sakai provides one of ordinary skill in the field of liquid crystals with a reason, suggestion, and motivation for having a layered buffer plate for (1) absorbing dispersion of thickness and bending of substrates and (2) for vertically repulsing pressure at any point on substrates (Id.).

Please note that it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. A buffer plate having a hard layer sandwiched by elastic layers would be within the realm of one skilled in the art of liquid crystals in light of the Sakai teaching that an elastic layer as part of a buffer plate ensemble absorbs dispersion of thickness and bending of substrates.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Tsubota in view of Sakai for a manufacturing method in which a buffer plate assembly provides for more constantly forming a uniform cell gap (Sakai at Column 6, Lines 62-63).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio

Robert Kim, SPE

Patent Examiner  
Art Unit 2871

  
ROBERT H. KIM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800